### (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 10 March 2005 (10.03.2005)

**PCT** 

# (10) International Publication Number WO 2005/021764 A3

(51) International Patent Classification<sup>7</sup>: C1 15/62, 9/64

C12N 15/82,

(21) International Application Number:

PCT/IS2004/000011

(22) International Filing Date: 27 August 2004 (27.08.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/497,935

6929

27 August 2003 (27.08.2003) US 27 August 2003 (27.08.2003) IS

(71) Applicant (for all designated States except US): ORF LIFTAEKNI EHF. [IS/IS]; RALA Husinu, Keldnaholti, IS-112 Reykjavik (IS).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): MANTYLA, Einar [IS/IS]; Snekkjuvogi 13, IS-104 Reykjavik (IS). ORVAR, Bjorn, Larus [IS/IS]; Hrauntungu 44, IS-200 Kopavogur (IS).
- (74) Agent: A & P ARNASON; Efstaleiti 5, IS-103 Reykjavik (IS).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 19 May 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A PROCESS FOR PROTEOLYTIC CLEAVAGE AND PURIFICATION OF RECOMBINANT PROTEINS PRODUCED IN PLANTS

(57) Abstract: The present invention relates to improved methods for protein purification of high-value heterologous proteins by providing fusion proteins suitable for affinity purification and improved and economical methods of proteolytic cleavage of fusion proteins. The methods are useful for large-scale production of purified recombinant proteins from plants, plant-derived tissue or plant cells. The invention aims to reduce the cost and improve the quality of downstream processing of heterologous proteins produced in plants and other biological production systems.

2005/021764 A3 III